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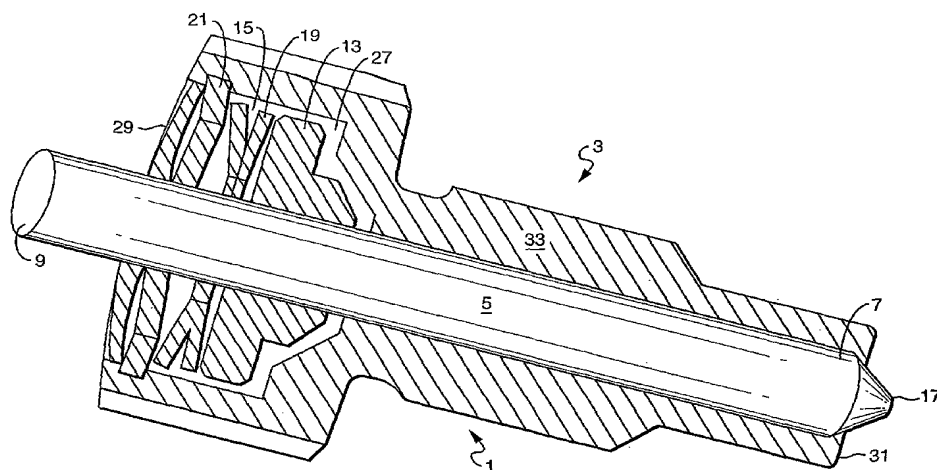
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(54) Title: A SELF-SETTING HIGH PRESSURE FITTING



(57) Abstract: A coupling element (1) comprising a male sealing element (5) is disclosed herein. The male sealing element comprises a first end (7), second end (9), and a longitudinal axis extending between the first and second end. The coupling element is housed within a nut (3). In one aspect, the male sealing element has a generally cylindrical shape. Also, the male sealing element defines a fluid passageway therethrough for the transmission of fluid. The male sealing element is secured to a ferrule (13) which is located within a cavity of the nut. The first end of the male sealing element defines a conical sealing surface. In one aspect, the male conical sealing surface (17) mates with a female sealing element (23) which has a receptacle that is defined by a nearly complementary conical geometry. In this aspect, the male conical sealing surface has a mismatched angle when compared to the complementary conical female sealing element. The coupling element also has a biasing element (19) disposed between a retaining ring and the ferrule located within the nut cavity. This biasing element facilitates a fluid-tight, metal to metal (or metal to plastic, or plastic to plastic) seal between the male sealing element and female sealing element.

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